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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/607,162	06/29/2000	THOMAS B. HALL	102850-11	7115

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EXAMINER
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HARRISON, CHANTE E

ART UNIT	PAPER NUMBER
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2672

DATE MAILED: 04/30/2003

12

Please find below and/or attached an Office communication concerning this application or proceeding.

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# Office Action Summary

Application No.

09/607,162

Applicant(s)

HALL ET AL.

Examiner

Chante Harrison

Art Unit

2672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

### DETAILED ACTION

1. This action is responsive to communications: Request for Reconsideration, filed on 2/23/03.

***This action is made FINAL.***

2. Claims 1-20 are pending in the case. Claims 1, 7, 11, 14 and 17 are independent claims.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

1. Claims 1-4, 6, 11 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Cave, U.S. Patent 5,841,438, 11/1998.

As per independent claim 1, Cave discloses separating data into graphical and multimedia data (Fig. 2A), providing three sequencing schemes within the multimedia data (Fig. 2A) by providing a first scheme is a hierarchical structure of bounding boxes to synchronize displayed graphical data with time ordered events (Fig. 2A), a sequence map containing tracks, each track being a path through the bounding boxes (Fig. 2A), a third scheme comprising a time map defining the time ordered events (Fig. 2A).

As per dependent claim 2, Cave discloses the graphical data are a musical notation and the time ordered events correspond to a musical performance (Fig. 2A "205"; col. 6, ll. 22-26).

As per dependent claim 3, Cave discloses the bounding boxes is defined for a musical score (col. 6, ll. 16-21; abstract).

As per dependent claim 4, Cave discloses a plurality of time maps corresponding to a plurality of musical performances (Fig. 2A).

As per dependant claim 6, Cave discloses a single bit for each track in the sequence map (col. 7, ll. 20-30), each bit indicating whether a bounding box is associated with a time event (col. 7, ll. 45-55).

As per independent claim 11, Cave discloses using the bounding boxes to position and zoom the displayed interactive graphics in response to user input (col. 8, ll. 37-46). Claim 11 claims a method performed in the computer of claim 1. The rationale as applied in the rejection of claim 1 applies herein.

As per dependent claim 12, Cave discloses using the bounding boxes to highlight the displayed graphics (col. 9, ll. 1-10).

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 5, 7-10, 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cave as applied to claim 1 and further in view of Stephen Kennedy, U.S. Patent 5,690,496, 11/1997.

As per dependent claim 5, Cave fails to specifically disclose the three sequencing schemes is done on the server, which Kennedy discloses (col. 3, ll. 60-61; col. 4, ll. 5-22). It would have been obvious to one of ordinary skill in the art to combine the server disclosed by Kennedy with the disclosure of Cave because Cave teaches storing files on multiple devices for delivery and storing files on a hard drive enables shared access over a network.

As per independent claim 7, Cave discloses graphical data logically separate from multimedia data (Fig. 2A), multimedia data comprising a plurality of data subsets (Fig. 2A), a plurality of bounding boxes (Fig. 2A), a sequence map containing tracks, each track corresponding to a sequence of the bounding boxes (Fig. 2A), and a time map synchronizing audio or video (Fig. 2A). Cave discloses storing data (col. 6, ll. 1-15), but fails to disclose a server, which Kennedy discloses (col. 3, ll. 60-61; col. 4, ll. 5-22). It would have been obvious to one of ordinary skill in the art to include the server disclosed by Kennedy with the disclosure of Cave because Cave teaches storing files on multiple devices for delivery and storing files on a hard drive enables shared access over a network.

As per dependent claim 8, Cave discloses a display (Fig. 1), as does Kennedy (Fig. 7).

As per dependent claim 9, Cave discloses tagging a bounding box with information that can be added or removed and displayed upon user request (col. 6, ll. 29-37), as does Kennedy (col. 7, ll. 20-23, 55-61).

As per dependent claim 10, Cave discloses the bounding boxes defining location of the graphical data on the display (col. 6, ll. 15-21), as does Kennedy (col. 4, ll. 40-45).

As per dependent claim 13, Cave fails to disclose highlighting the graphics in sync to an external performance, which is disclosed by Kennedy (col. 6, ll. 5-25). It would have been obvious to combine the highlighting of graphics in sync to an external performance with the disclosure of Cave because Cave teaches highlighting the score during playback and highlighting helps the score to playback in a timely manner.

As per independent claim 14, Cave discloses the discloses graphical and multimedia data corresponding to interactive graphics (col. 6, ll. 5-15; Fig. 2A), bounding boxes with the multimedia data (Fig. 2A), using the bounding boxes to position and zoom the displayed interactive graphics and highlighting the graphics in response to user input (col. 8, ll. 30-46; col. 9, ll. 1-10), but fails to disclose highlighting the graphics in sync to an external performance and a server. Kennedy discloses highlighting the graphics in sync to an external performance (col. 6, ll. 5-25) and a server (col. 3, ll. 60-61; col. 4, ll. 5-22). It would have been obvious to include the highlighting of graphics in sync to an external performance with the disclosure of Cave because Cave teaches

highlighting the score during playback and highlighting helps the score to playback in a timely manner; and to include a server with the disclosure of Cave because Cave teaches storing files on multiple devices for delivery and storing files on a hard drive enables shared access over a network.

As per dependent claim 15, Cave fails to disclose a network for downloading the interactive graphics, which is disclosed by Kennedy (col. 3, ll. 60-61; Figs. 1 & 2). It would have been obvious to one of ordinary skill in the art to include a network for downloading the interactive graphics in the disclosure of Cave because he teaches preparing files to deliver multimedia objects and delivery enables the sharing of data between computers.

As per dependent claim 16, Cave discloses the interactive graphics is sheet music (abstract), as does Kennedy (Fig. 7). Cave fails to disclose the external performance is a musical performance, which Kennedy does disclose (col. 6, ll. 5-25). It would have been obvious to one skilled in the art at the time of invention to combine Kennedy's disclosure of an external musical performance with that of Cave so that playback would be interactive.

3. Claims 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cave and further in view of Marlin Eller, U.S. Patent 5,889,860, 3/1999.



As per independent claim 17, Cave discloses storing graphical data (col. 6, ll. 1-15; Fig. 2A), bounding boxes controlling display of the graphical data (col. 8, ll. 15-25), contiguity and hierarchy of the bounding boxes to eliminate repetitive encoding of the bounding boxes (Fig. 2D), thereby reducing the number of bytes used to represent the graphical data and providing the compressed graphical data (col. 8, ll. 15-30). Cave fails to disclose a server, which Eller discloses (Fig. 1). It would have been obvious to one of ordinary skill in the art to include the server disclosed by Eller with the disclosure of Cave because Cave teaches storing files on multiple devices for delivery and storing files on a hard drive enables shared access over a network.

As per independent claim 18, discloses defining the position of a subsequent bounding box on the display in terms of an offset from a previous bounding box (col. 7, ll. 28-40), which Eller fails to disclose. However, it would have been obvious to combine the disclosures of Eller and Cave because Eller teaches receiving files for display of data (col. 3, ll. 15-30) and Cave teaches positioning data in the files for subsequent playback.

As per dependent claim 19, Eller discloses transmitting the compressed graphical data via a network (Fig. 9), which Cave fails to specifically disclose. It would have been obvious to include the transmission of compressed data as disclosed by Eller in the disclosure of Cave because Cave teaches compressing the data prior to delivery for playback.

As per dependent claim 20, Cave discloses programming the device to be able to determine hierarchical relationships of all bounding boxes, which Eller fails to specifically disclose (col. 7, ll. 40-55). It would have been obvious to combine the disclosures because Eller teaches decompressing the transmitted data for playback and Cave teaches providing playback capabilities.

***Response to Arguments***

4. Applicant's arguments filed 2/23/03 have been fully considered but they are not persuasive.

Applicant argues (pp. 2, Para 4) Cave does not teach logically separating the multimedia object into at least two data subsets.

Cave teaches multimedia data comprising sound, music, text, graphics and video (Fig. 2A).

Applicant argues (pp. 3, Para 1) Cave does not teach providing a second sequencing scheme comprising a sequence map containing one or more tracks, each track being a path through the hierarchical structure of bounding boxes and providing a third sequencing scheme comprising at least one time map defining the series of time ordered events.

Cave teaches a second sequencing scheme (Fig. 2A) because he discloses different types of data arranged in multiple tracks executed during a playback score, which incorporates music (col. 6, ll. 15-37). Cave also discloses each track being a path through the hierarchical structure because each track is executed during runtime to demonstrate a multimedia presentation (col. 6, ll. 20-25, 37-45). Additionally, Cave discloses a third sequencing scheme (Fig. 2A) because he teaches tracks positioned on

a playback grid, where the tracks are played within a given time window (col. 6, ll. 20-27).

Applicant argues (pp. 3, Para 4) Cave does not teach utilizing a hierarchy of bounding boxes to facilitate positioning and zoom of the displayed interactive graphics in response to a user's input.

Cave teaches using the bounding boxes to position the displayed interactive graphics in response to user input because he discloses user manipulation of the bounding box via a drag and drop operation results in the repositioning of bounding boxes such that they fit within a pipe (col. 8, ll. 37-43), which corresponds to a user defined bandwidth that the media should be delivered (col. 8, ll. 15-25). Additionally, Cave teaches user manipulation of the outer lines of a bounding box to change its shape, while maintaining the total area of the bounding box by adjusting the end-of delivery boundary, (which defines the time period in which the media object is executed) so that the data size of the media object represented remains constant (col. 8, ll. 40-58). Thus, by manipulating the boundary lines of the bounding boxes, while maintaining the content of the bounding box, Cave is effectuating a zoom of the object.

Applicant argues (pp. 3, Para 4; pp. 9, Para 1 & 2) Cave does not teach providing a hierarchical set of bounding boxes, as illustrated in Fig. 3 of the present invention in which the hierarchical structure of the bounding boxes delineates the areas of the

graphics where a note or a chord should be positioned in the graphical representation of a musical piece.

Cave teaches a hierarchical set of bounding boxes because he discloses positioning graphics and other multimedia data relative to one another on a display (Figs. 1 & 2A). Additionally, a hierarchical structure of bounding boxes delineating the areas of the graphics where a note or a chord should be positioned in the graphical representation of a musical piece is not claimed.

Applicant argues (pp. 8, Para 1) Eller does not teach logically separating various types of data in a multimedia file and further describing the multimedia data subset having eh hierarchical structure of bounding boxes, in reference to claims 5, 7, 14 and 17.

The previous Office Action did not reject claims 5, 7 and 14 in view of Eller. Thus the argument in reference to those claims is moot. With respect to the rejection of claim 17 in view of Eller, the disclosure of Eller was used to supplement that of Cave because it (Cave) failed to disclose a server storing the graphical data as claimed in claim 17. Thus, Eller discloses a server storing the graphical data because he teaches a computer system including a server, which includes a library or database of digital music scores (col. 4, ll. 25-32).

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Chante Harrison** whose telephone number is **(703) 305-3937**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Michael Razavi**, can be reached at **(703) 305-4713**.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

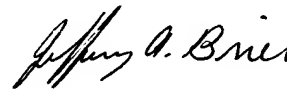
**or faxed to:**

**(703) 872-9314 (for Technology Center 2600 only)**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Ceh  
April 28, 2003

  
JEFFREY BRIER  
PRIMARY EXAMINER